REMARKS

Reconsideration is requested.

The details of claim 26 have been added to claim 14, without prejudice. Claims 27-29 have been added and find support in the now-canceled alternative embodiments of the unamended claims 18, 24 and 25, respectively.

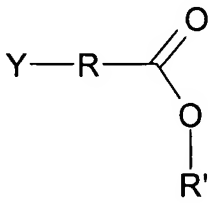
Claims 1-13 and 26 have been canceled, without prejudice. Claims 14-25 and 27-29 are pending.

The Section 112, second paragraph, rejection of claims 18, 24 and 25 is obviated by the above amendments.

The Section 103 rejection of claims 14-26 over Cain (U.S. Patent No. 5,523,302), is traversed. The Section 103 rejection of claim 26 over Cain (U.S. Patent No. 5,523,302) in view of Szajda (Pharmazie, 1989, 44, pages 190-191), is traversed. Reconsideration and withdrawal of the rejections are requested in view of the above and the following distinguishing comments.

The present invention relates to a method for the preparation of 1,3-diphenylprop-2-en-1-one derivatives substituted by a carboxyalkyloxy or carboxyalkylthio group. The claimed method comprises process steps (i) and (ii).

Step (i) of the claimed method comprises contacting at least one 1,3-diphenylprop-2-en-1-one derivative substituted on one of the two phenyl groups by a hydroxyl or thiol group with at least one halogenated compound represented by general formula (II) :



in which Y represents a halogen atom, R is a C1-C24 alkyl chain and R' is an acid-labile protective group of carboxylic acid; and

Step (ii) comprises acid hydrolysis of the ester obtained in step (i).

The claimed method is simple to carry out and the yield of the obtained product is satisfactory (see examples).

As described in the specification, it is known in the art that 1,3-diphenylprop-2-en-1-ones can be generally prepared by condensation reaction of an aldehyde with a ketone in a Claisen-Schmidt reaction. By applying this method known in the art, the overall yield however was not greater than 10 %.

The Examiner is understood to believe that the claimed invention would have been obvious in view of Cain et al or Cain et al in view of Szajda et al.

The cited Cain et al is understood to describe compounds of formula (I) and methods to prepare the same. More specifically, the reference is understood to disclose methods for the synthesis of compounds of formulas (Ia)–(Ij), which are particular embodiments of formula (I) presenting a 1,3-diphenylprop-2-en-1-one structure. Compounds of formulas (Ia)-(Ij) present on each phenyl a basic group and acidic group. The methods are illustrated and numbered as schemes I to X. Some, among the ten methods, present two different alkylation methods therein.

With respect to the analysis of Cain, the Examiner is understood to rely, more particularly, on scheme VII that present two branches. The Examiner is understood to

state that left branch describes an alkylation conversion with a compound bearing a protective group and a leaving group followed by deprotection.

The Examiner is further understood to believe that the difference between the process taught by Cain and that instantly claimed is that Cain does not in this scheme define the groups W and leaving group G while in the instant case these are defined as a carboxy group and halo group, respectively. To illustrate his statement, the Examiner cites column 50, lines 5-15 that relates to the alkylation of a phenol and column 50, lines 35-48 that relates to deprotection. However, the applicants believe that it is worth noting that example 2 of column 50 seems to illustrate the method according to scheme IV and not VII. Moreover, the alkylation described on column 50 is carried out with a phenol and not a diphenylprop-2-en-1-one structure.

In view of the above, the Examiner is understood to believe that the claimed process would have been obvious to one of ordinary skill in the art.

The Examiner is not believed to mention or detail in his analysis where the cited art provides any motivation for one ordinary skill in the art to have picked up scheme VII (and more specifically left branch of scheme VII) whereas several other methods are similarly disclosed in the cited document. Moreover, the Examiner is not believed to mention or detail that the starting materials and prepared compounds in the cited document are different from those of the invention. Furthermore, the cited document is silent with regard to the overall yield of the disclosed methods and does not suggest therefore to select one method instead of another.

The applicants submit that potential knowledge of chemical reactions involved would not have suggested a continuous process directed thereto. The mere existence

of an unsatisfactory process and the attendant incentive to seek improvement would not have rendered obvious the change in the process made by the applicant even where the change was capable of being made from a theoretical point of view.

The applicants further submit, with due respect, that the Examiner has made an hindsight analysis to allegedly support the obviousness rejections of the claimed invention, without taking account of at least the following elements: the starting materials are different, numerous methods including several steps are disclosed, no suggestion is made to choose one method from another and further to adapt said selected method to the main goal of the present invention, i.e. preparation of compounds of formula (I).

Based on the above and the presently claimed invention, the applicants respectfully submit that one of ordinary skill in the art would not have found any incentive or motivation from the whole disclosure of Cain to arrive to the presently claimed method.

Szajda, also cited by the Examiner, is understood to describe new alkoxycarbonylalkyloxychalcones and their alpha, beta-dibromo derivatives, their preparation and their potential antimicrobial activity.

The applicants understand synthesis of the methyl and ethyl ester described in this document follows up a step similar to step (i) of the process of the present application. However, methyl and ethyl esters are protective groups stable under acidic conditions and not acid-labile protective groups as defined in the step (ii) of the present application. Moreover, step (ii) of the present invention is not described nor suggested by Szajda.

Consequently, Szajda does not cure the deficiencies described above and generally existing in the cited Cain et al.

Accordingly, withdrawal of the Section 103 rejections are requested.

The claims are submitted to be in condition for allowance and a Notice to that effect is requested. The Examiner is requested to contact the undersigned, preferably by telephone, in the event anything further is required to place the application in condition for allowance.

Respectfully submitted,

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